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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,002	11/15/2001	William J. Biter	RM528a	3456

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EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/991,002	Applicant(s) BITER ET AL.
	Examiner Ljiljana (Lil) V. Ciric <i>LVC</i>	Art Unit 3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004 and 04 May 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. This Office action is in response to the amendments and arguments filed on February 2, 2004 and on May 4, 2004.
2. Claims 1 through 21, all as amended, either directly or indirectly, remain in the application.

### *Response to Arguments*

3. Applicant's arguments filed on February 2, 2004 and on May 4, 2004 have been fully considered but they are generally not persuasive.

In response to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a movable covering *of the spacecraft*; changing emissivity without temperature changes) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, the examiner hereby wishes to reiterate that the claims in a pending application should be given their *broadest* reasonable interpretation. See *In re Pearson*, 181 USPQ 641 (CCPA 1974). Applicant's arguments, on the other hand, rely on an inappropriately narrow interpretation of the claims in the instant pending application. For example, applicant argues that the '172 patent fails to teach a "covering", because it teaches "interior wall structures". The examiner hereby counters that curtains are ordinarily considered as "covering" windows, even though curtains generally cover windows on the inside of a room or house; analogous to this, the layers disclosed in the '172 patent constitute a "covering" as explained in

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greater detail below in the section corresponding to the rejection of the claims as being anticipated by the '172 under 35 U.S.C. 102(b). Similarly, applicant's interpretations of the terms "non-contact mode" and "separator" are overly narrow, as well.

Applicant is also respectfully reminded that claims directed to apparatus *must* be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Also, "[A]pparatus claims cover what a device *is*, not what a device *does*. (Emphasis in original). Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). Thus, relying on various alleged operational or functional differences of the instant inventive apparatus in an attempt to overcome the prior art is not persuasive.

Upon reconsideration in view of applicant's arguments and amendments to the claims, the examiner hereby withdraws the rejections of the claims under 35 U.S.C. 112, first and second paragraphs, relating to the use of the terms "high emissivity" and "low emissivity".

#### ***Specification***

4. Receipt and entry of the amended abstract is hereby acknowledged.
5. Receipt and entry of the substitute specification is hereby acknowledged.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1 through 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Despite the attempt to remove ambiguities related to the use of the relative terms “outer” and “inner” with regard to the layers, the structural relationships between the various layers and other elements are still indeterminate and the intended scope of protection sought by the claims is still rendered indefinite by the use of these terms in the claims. For example, the limitations “an object having a low emissivity layer, outer in reference to the inside of the spacecraft” is recited in base claim 1 and is not clear as written. Is the object outside the spacecraft or is the layer the outside layer of the object, where the object is inside the spacecraft and the outer layer is in contact with the inside ambient of the spacecraft? These and similar claim limitations in claims 3, 8, 12, 17, 18, 21 fail to clearly specify the structural interrelationships between the low emissivity outer layer, the high emissivity outer layer, the inner dielectric layer, and the covering, thus rendering the metes and bounds of protection sought by these claims (and all claims depending therefrom) indefinite.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. As best can be understood in view of the indefiniteness of the claims, claims 1 through 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Clifford.

Clifford discloses an electrostatically controlled spacecraft radiator essentially as claimed, including: an object or spacecraft outer layer 14 in the form of a metal plate [see column 3, lines 18-20] which may be the skin of a spacecraft [see column 4, lines 32-36]; and, a

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movable and flexible covering comprising composite electrostatically positioned members 12, each composite layer comprising an "outer" high emissivity wrinkled/crinkled metal layer and an "inner" dielectric layer comprising a plastic film [see Figure 2], the wrinkles being broadly readable on the "separator" as recited in claim 5 of the instant invention; a switchable DC electric power source 28 [column 3, lines 34-35], wherein a non-powered state of the outer high emissivity metallic coating causes a non-contact mode and a low heat transfer rate away from the spacecraft to occur and wherein a powered state of the same outer high emissivity metallic coating causes the contact mode and a higher heat transfer rate away from the spacecraft to occur [see column 3, lines 59-68, column 4, lines 1-4]. The relatively smooth metallic outer layer 14 is understood as inherently having a "low" emissivity. Each wrinkled metal layer of the composite electrostatically positioned members 12 is understood as inherently having a "high" emissivity due to the roughness of the emissive surface.

The reference thus reads on the claims.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel, can be reached on (703) 308-1272.

The NEW central official fax phone number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

August 23, 2004

  
LJILJANA V. CIRIC  
PRIMARY EXAMINER  
ART UNIT 3753